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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,580	03/11/2004	Anton Dietrich	3691-661	4818

23117 7590 06/22/2006

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER	
PIZIALI, ANDREW T	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/797,580	DIETRICH ET AL.	
	Examiner	Art Unit	
	Andrew T. Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-8,11-16,18-23,26,27 and 30-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-8,11-16,18-23,26,27 and 30-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 5/1/2006 has been entered. The rejections of claims 3, 9, 10, 17, 24, 25, 28, 29 and 34 have been withdrawn based on the cancellation of these claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4-7, 11-15, 18-22, 26, 27 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,837,361 to Glaser in view of USPN 5,153,054 to Depauw.

Regarding claims 1, 4-7, 11-15, 18-22, 26, 27 and 30-33, Glaser discloses (see entire document including column 3, lines 17-66 and column 4, lines 45-58) a coated article comprising a coating supported by a glass substrate, the coating comprising at least the following layers from the glass substrate outwardly:

a dielectric layer

a zinc oxide layer

a silver layer

a nichrome oxide layer

a dielectric layer

a zinc oxide layer

a silver layer

a nichrome oxide layer

a dielectric layer.

Glaser does not specifically mention adding a zinc oxide layer above one or more of the sacrificial nichrome layers, but Depauw discloses that it is known in the art to a add a zinc oxide layer above sacrificial metal layers to protect the silver layer from corrosion (see entire document including column 3, lines 14-37). Depauw even discloses that the location of the zinc oxide layer above the sacrificial metal layers is particularly important (column 4, lines 6-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a zinc oxide layer above each of the overlying sacrificial metal layers, because the zinc oxide layers would protect the silver layer against corrosion.

Glaser does not specifically mention heat treating (thermally tempering) the coated article, but Depauw discloses that it is known in the art to heat treat an article to make it suitable for automotive applications (column 4, lines 25-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to heat treat the article, because heat treating allows for use of the coated article in automotive glass applications. Considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification) it appears that the coated article inherently possesses the claimed visible transmission, sheet resistance, and normal emissivity.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 4-7, 19-22 and 30-33, Glaser discloses that the dielectric layers may comprise silicon nitride and/or a layer of tin oxide (column 3, lines 26-66).

Regarding claims 11-14, 26, 31 and 33, considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification) it appears that the coated article inherently possesses the claimed properties.

Regarding claims 12-14, 27, 31 and 33, Glaser discloses that the coated article may be laminated to another glass substrate (column 4, lines 25-33).

4. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,837,361 to Glaser in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-7, 11-15, 18-22, 26, 27 and 30-33 above, and further in view of any one of USPN 6,316,110 to Anzaki or USPN 6,398,925 to Arbab.

The applied prior art does not specifically mention adding aluminum to the zinc oxide layers, but Anzaki and Arbab each disclose that it is known in the art to add aluminum to zinc oxide layers that protect a silver layer from oxidation to improve adhesion to the silver layers and/or to make the zinc oxide layer conductive (see entire documents including column 1, lines 42-51 of Anzaki and column 4, lines 20-32 of Arbab). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the zinc oxide layers from any suitable zinc oxide material, such as zinc oxide comprising aluminum, because the aluminum improves adhesion to the silver layers and/or because the aluminum makes the zinc oxide conductive, and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

5. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,837,361 to Glaser in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-7, 11-15, 18-22, 26, 27 and 30-33 above, and further in view of any one of USPN 6,472,636 to Baldwin or USPN 6,492,619 to Sol.

Glaser discloses that the first dielectric layer may comprise silicon nitride (column 3, lines 26-66), but Glaser does not appear to mention Si-rich silicon nitride. Baldwin and Sol each disclose that it is known in the art to use Si-rich silicon nitride dielectric layers because Si-rich silicon nitride layers reduce haze and/or improve mechanical durability (see entire documents including column 5, line 30 through column 6, line 14 of Baldwin and column 6, lines 15-65 of Sol). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a Si-rich silicon nitride dielectric layer for the first dielectric layer of Glaser, because Si-rich silicon nitride layers reduce haze and/or improve mechanical durability.

6. Claims 1, 4-5, 11-15, 18-20, 26-27 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,557,462 to Hartig in view of USPN 5,153,054 to Depauw.

Regarding claims 1, 4-5, 11-15, 18-20, 26-27 and 30-33, Hartig discloses (see entire document including column 6, lines 23-67) a coated article comprising a coating supported by a glass substrate, the coating comprising at least the following layers from the glass substrate outwardly:

a silicon nitride dielectric layer

a silver layer

a nichrome oxide layer

a silicon nitride layer

a silver layer

a nichrome oxide layer

a silicon nitride layer.

Hartig does not specifically mention placing a zinc oxide layer directly below each silver layer while also placing a zinc oxide layer above the overlying sacrificial metal layers, but Depauw discloses that it is known in the art to place a zinc oxide layer directly below each silver layer while also placing a zinc oxide layer above the overlying sacrificial metal layers to protect the silver layer against corrosion (see entire document including column 3, lines 14-37, column 6, lines 26-35 and column 7, lines 41-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a zinc oxide layer directly below each silver layer while also placing a zinc oxide layer above the overlying sacrificial metal layers, because the zinc oxide layers would protect the silver layer against corrosion.

Hartig does not specifically mention heat treating (thermally tempering) the coated article, but Depauw discloses that it is known in the art to heat treat an article to make it suitable for automotive applications (column 4, lines 25-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to heat treat the article, because heat treating allows for use of the coated article in automotive glass applications. Considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification) it appears that the coated article inherently possesses the claimed visible transmission, sheet resistance, and normal emissivity.

Regarding claims 11-14, 26, 31 and 33, considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification) it appears that the coated article inherently possesses the claimed properties.

Regarding claims 12-14, 27, 31 and 33, Hartig discloses that the coated article may be laminated to another glass substrate (column 1, lines 14-24).

7. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,557,462 to Hartig in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11-15, 18-20, 26-27 and 30-33 above, and further in view of any one of USPN 6,316,110 to Anzaki or USPN 6,398,925 to Arbab.

The applied prior art does not specifically mention adding aluminum to the zinc oxide layers, but Anzaki and Arbab each disclose that it is known in the art to add aluminum to zinc oxide layers that protect a silver layer from oxidation to improve adhesion to the silver layers

and/or to make the zinc oxide layer conductive (see entire documents including column 1, lines 42-51 of Anzaki and column 4, lines 20-32 of Arbab). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the zinc oxide layers from any suitable zinc oxide material, such as zinc oxide comprising aluminum, because the aluminum improves adhesion to the silver layers and/or because the aluminum makes the zinc oxide conductive, and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

8. Claims 6-7 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,557,462 to Hartig in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11-15, 18-20, 26-27 and 30-33 above, and further in view of USPN 5,718,980 to Koch.

Hartig does not specifically mention a using a multi-layer dielectric layer, but Koch discloses that it is known in the art to use a silicon nitride dielectric layer or a multi-layer comprising a silicon nitride layer and a tin oxide layer (see entire document including column 3, lines 35-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the dielectric layer from any suitable dielectric material, such as a multi-layer of silicon nitride and tin oxide, because the multi-layer possesses the advantages of each layer, and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

9. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,557,462 to Hartig in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11-15, 18-20, 26-27 and 30-33 above, and further in view of any one of USPN 6,472,636 to Baldwin or USPN 6,492,619 to Sol.

Hartig discloses that the dielectric layers comprise silicon nitride (column 6, lines 23-46), but Hartig does not appear to mention Si-rich silicon nitride. Baldwin and Sol each disclose that it is known in the art to use Si-rich silicon nitride dielectric layers because Si-rich silicon nitride layers reduce haze and/or improve mechanical durability (see entire documents including column 5, line 30 through column 6, line 14 of Baldwin and column 6, lines 15-65 of Sol). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Si-rich silicon nitride dielectric layers for the dielectric layers of Hartig, because Si-rich silicon nitride layers reduce haze and/or improve mechanical durability.

10. Claims 1, 4-5, 11, 15, 18-20, 26, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,336,999 to Lemmer et al. (hereinafter referred to as Lemmer) in view of USPN 5,153,054 to Depauw.

Regarding claims 1, 4-5, 11, 15, 18-20, 26, 30 and 32, Lemmer discloses (see entire document including Figure 2) a coated article comprising a coating supported by a glass substrate, the coating comprising at least the following layers from the glass substrate outwardly:

a silicon nitride dielectric layer

a silver layer

a nichrome oxide layer

a silicon nitride layer

a silver layer

a nichrome oxide layer

a silicon nitride layer.

Lemmer does not specifically mention placing a zinc oxide layer directly below each silver layer while also placing a zinc oxide layer above the overlying sacrificial metal layers, but Depauw discloses that it is known in the art to place a zinc oxide layer directly below each silver layer while also placing a zinc oxide layer above the overlying sacrificial metal layers to protect the silver layer against corrosion (see entire document including column 3, lines 14-37, column 6, lines 26-35 and column 7, lines 41-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a zinc oxide layer directly below each silver layer while also placing a zinc oxide layer above the overlying sacrificial metal layers, because the zinc oxide layers would protect the silver layer against corrosion.

Lemmer discloses that the coated article may be used for automotive windows (column 1, lines 9-17), but Lemmer does not specifically mention heat treating the coated article. Depauw discloses that it is known in the art to heat treat (thermally temper) an article to make it suitable for automotive applications (column 4, lines 25-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to heat treat the article, because heat treating allows for use of the coated article in automotive glass applications. Considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification) it appears that the coated article inherently possesses the claimed visible transmission, sheet resistance, and normal emissivity.

Regarding claims 11 and 26, considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed

article (and the article taught by the specification), it appears that the coated article inherently possesses the claimed properties.

11. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,336,999 to Lemmer in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11, 15, 18-20, 26, 30 and 32 above, and further in view of any one of USPN 6,316,110 to Anzaki or USPN 6,398,925 to Arbab.

The applied prior art does not specifically mention adding aluminum to the zinc oxide layers, but Anzaki and Arbab each disclose that it is known in the art to add aluminum to zinc oxide layers that protect a silver layer from oxidation to improve adhesion to the silver layers and/or to make the zinc oxide layer conductive (see entire documents including column 1, lines 42-51 of Anzaki and column 4, lines 20-32 of Arbab). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the zinc oxide layers from any suitable zinc oxide material, such as zinc oxide comprising aluminum, because the aluminum improves adhesion to the silver layers and/or because the aluminum makes the zinc oxide conductive, and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

12. Claims 6-7 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,336,999 to Lemmer in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11, 15, 18-20, 26, 30 and 32 above, and further in view of USPN 5,718,980 to Koch.

Lemmer does not specifically mention a using a multi-layer dielectric layer, but Koch discloses that it is known in the art to use a silicon nitride dielectric layer or a multi-layer comprising a silicon nitride layer and a tin oxide layer (see entire document including column 3,

lines 35-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the dielectric layer from any suitable dielectric material, such as a multi-layer of silicon nitride and tin oxide, because the multi-layer possesses the advantages of each layer, and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability.

13. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,336,999 to Lemmer in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11, 15, 18-20, 26, 30 and 32 above, and further in view of any one of USPN 6,472,636 to Baldwin or USPN 6,492,619 to Sol.

Lemmer discloses that the first dielectric layer comprises silicon nitride (see Figure 2), but Lemmer does not appear to mention Si-rich silicon nitride. Baldwin and Sol each disclose that it is known in the art to use Si-rich silicon nitride dielectric layers because Si-rich silicon nitride layers reduce haze and/or improve mechanical durability (see entire documents including column 5, line 30 through column 6, line 14 of Baldwin and column 6, lines 15-65 of Sol). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a Si-rich silicon nitride dielectric layer for the first dielectric layer of Lemmer, because Si-rich silicon nitride layers reduce haze and/or improve mechanical durability.

14. Claims 12-14, 27, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,336,999 to Lemmer in view of USPN 5,153,054 to Depauw as applied to claims 1, 4-5, 11, 15, 18-20, 26, 30 and 32 above, and further in view of any one of USPN 5,557,462 to Hartig or Applicant's Disclosure.

Lemmer does not specifically disclose that the coated article may be laminated to another glass substrate (column 1, lines 14-24), but Hartig and Applicant's Disclosure each disclose that it is known in the art to laminate a coated article to another glass substrate to form an insulated glass window unit (see column 1, lines 13-24 of Hartig and [0003] of applicant's disclosure). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to laminate the coated article to another glass substrate to form an insulated glass window unit. Considering that the coated article is substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification), it appears that the coated article inherently possesses the claimed properties.

Response to Arguments

15. Applicant's arguments filed 5/1/2006 have been fully considered but they are not persuasive.

The applicant asserts that the applied prior art does not disclose or suggest the claimed visible transmission, sheet resistance, or emissivity. The examiner respectfully disagrees. The claims are rejected by a combination of references, therefore, the visible transmission, sheet resistance, and emissivity of the resulting structure are obviously not disclosed by just one of the references. Considering that the coated articles taught by the combinations of references are substantially identical in terms of substrate, structure, layer materials, and layer thicknesses, compared to the claimed article (and the article taught by the specification), it appears that the coated articles inherently possesses the claimed visible transmission, sheet resistance, and

normal emissivity. The applicant has failed to show, or attempt to show, that the article taught by the combination of the references would not possess the claimed properties.

Glaser does not specifically mention adding a zinc oxide layer above one or more of the sacrificial nichrome layers, but Depauw discloses that it is known in the art to a add a zinc oxide layer above sacrificial metal layers to protect the silver layer from corrosion (see entire document including column 3, lines 14-37). Depauw even discloses that the location of the zinc oxide layer above the sacrificial metal layers is particularly important (column 4, lines 6-18). It would have been obvious to one having ordinary skill in the art at the time the invention was made to place a zinc oxide layer above each of the overlying sacrificial metal layers, because the zinc oxide layers would protect the silver layer against corrosion.

Despite the clear motivation to add a zinc oxide layer above one or more of the sacrificial nichrome layers of Glaser (see above paragraph) the applicant asserts that there is no motivation because the layer below the zinc oxide layer of Depauw is a stainless steel layer. The applicant appears to be suggesting that the zinc oxide layer is essentially worthless without an underlying stainless steel layer and that it would be necessary to replace the nichrome layers of Glaser with stainless steel layers. The examiner respectfully disagrees. Depauw specifically discloses that the improvements of the invention are primarily achieved by the zinc oxide layer (column 4, lines 6-18). It is also noted that the stainless steel layer of Depauw simply serves the purpose of protecting the silver layer against oxidiation (column 5, lines 22-36) and that the nichrome layer of Glaser performs this exact same function (see column 3, lines 49-61).

The applicant mentions the existence of unexpected results. The examiner respectfully disagrees. Firstly, the applicant has failed to show that the alleged unexpected results are related

to the zinc oxide layer (22). The current specification compares the coated article of Examples 1-3 of USPN 6,686,050 to Lingle (see Figure 5 of USPN 6,686,050) with the coated article in Figure 1 of the current specification. The coated articles are wildly different. The applicant has failed to show, or attempt to show, that the alleged unexpected results are due to zinc oxide layer. Secondly, the alleged unexpected results mentioned in the specification are not unexpected. The specification asserts that the zinc oxide layer (22) unexpectedly results in one or more of higher visible transmission, improved thermal stability, lower sheet resistance, and lower emissivity (all upon heat treatment). Depauw teaches that these results are not unexpected. Depauw discloses that a zinc oxide layer, located in an identical position to that currently claimed (above the top silver layer while being sandwiched between a sacrificial metal layer and a top dielectric layer), results in an article with high visible transmission, improved thermal stability upon heat treatment, and low emissivity (see entire document including column 4, lines 6-40, column 5, lines 37-46, column 6, lines 17-25, and column 9, lines 3-10). Depauw even discloses that the location of the zinc oxide layer above the sacrificial metal layers is particularly important (column 4, lines 6-18).

The applicant asserts that the reasons for the alleged unexpected results are not entirely clear and that the results are "very surprising" especially because a (sacrificial) layer is provided between the zinc oxide layer and the silver (see [0031]). Not only does Depauw disclose that the results are expected, Depauw at least partially explains the reason for the results. Depauw discloses that the zinc oxide layer may diffuse through the sacrificial layer to effect a degree of passivation of the silver (column 4, lines 6-18).

Conclusion

16. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/20/06

atp

ANDREW T. PIZIALI
PATENT EXAMINER